

IN THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims

1. (Currently Amended): A method of setting up a delegated connection, the method comprising:

designating a first portion of a system memory within a first computing system for storage of frame payload data in legacy buffers, wherein the first portion of the system memory is allocated to a software driver configured to communicate between a dedicated hardware offload unit and a TCP stack;

designating a second portion of the system memory for storage of frame payload data in user buffers, wherein the second portion of the system memory is allocated to an application program;

establishing a TCP connection between the first computing system and a second computing system; and

determining whether or not to delegate the TCP connection for processing by the dedicated hardware offload unit to offload the TCP connection processing from a CPU of the first computing system.

2. (Original): The method of claim 1, further comprising setting up an entry in a delegated connection table upon determining to delegate the TCP connection.
3. (Currently Amended): The method of claim 1, wherein the step of determining is based on at least one characteristic of the TCP connection.

4. (Original): The method of claim 3, wherein the characteristic is a priority specified for the TCP connection.
5. (Original): The method of claim 3, wherein the at least one characteristic is a duration of the TCP connection.
6. (Original): The method of claim 3, wherein the at least one characteristic is a frame rate of the TCP connection.
7. (Original): The method of claim 2, further comprising transferring user buffer information for the delegated connection to the hardware.
8. (Currently Amended): The method of claim 2, further comprising receiving a frame for the delegated connection and determining a user buffer is available for storage of frame payload data.
9. (Currently Amended): The method of claim 8, further comprising uploading a portion of the frame to a location in the second portion of the system memory that is specified in the user buffer information.
10. (Original): The method of claim 2, further comprising receiving a frame for the delegated connection and determining a user buffer is not available.
11. (Currently Amended): The method of claim 10, further comprising uploading a portion of the frame to a legacy buffer in the first portion of the system memory.
12. (Currently Amended): A system for setting up a delegated connection, the system comprising:

 means for designating a first portion of a system memory within a first computing system for storage of frame payload data in legacy buffers, wherein the first portion

of the system memory is allocated to a software driver configured to communicate between a dedicated hardware offload unit and a TCP stack;

means for designating a second portion of the system memory for storage of frame payload data in user buffers, wherein the second portion of the system memory is allocated to an application program;

means for establishing a TCP connection between the first computing system and a second computing system; and

means for determining whether or not to delegate the TCP connection for processing by the dedicated hardware offload unit to offload the TCP connection processing from a CPU of the first computing system.

13. (Original): The system of claim 12, further comprising means for setting up an entry in a delegated connection table.
14. (Currently Amended): The system of claim 12, further comprising means for transferring user buffer information for the delegated connection to the dedicated hardware offload unit.
15. (Currently Amended): The system of claim 12, further comprising means for determining a user buffer is available for storage of frame payload data.
16. (Original): The system of claim 12, further comprising means for setting a maximum segment size.
17. (Original): The system of claim 12, further comprising means for enabling and disabling acknowledgement coalescing.
18. (Currently Amended): A system for setting up a delegated connection, the system comprising:

a CPU configured to execute an application program and a TCP Stack, the TCP Stack configured to determine whether or not to delegate a TCP connection for processing by a dedicated hardware offload unit to offload the TCP connection processing from the CPU; and

a system memory coupled to the CPU the system memory including:

a first portion that is allocated to a software driver configured to communicate between a dedicated hardware offload unit and the TCP stack and designated for storage of frame payload data in legacy buffers; and

a second portion of the system memory that is allocated to the application program for storage of frame payload data in user buffers.

19. (Cancelled)
20. (Currently Amended): The system of claim ~~[[19]]~~18, wherein the TCP Stack provides the hardware with location information corresponding to ~~[[the]]~~ at least one user buffer.
21. (Original): The system of claim 20, wherein the location information includes a physical address.
22. (Original): The system of claim 20, wherein the location information includes a user buffer size.
23. (Cancelled)
24. (Cancelled)
25. (Currently Amended): The system of claim ~~[[19]]~~18, wherein the dedicated hardware offload unit is configured to process frames to produce payload data for the delegated connection set up by the TCP Stack.

26. (Currently Amended): The system of claim 25, wherein the dedicated hardware offload unit is configured to upload the payload data to one or more of the user buffers when user buffer location information is provided to the dedicated hardware offload unit by the application program and translated into physical address space by the TCP Stack.
27. (Currently Amended): The system of claim 25, wherein the dedicated hardware offload unit is configured to upload the payload data to a legacy buffer when user buffer location information is not provided to the hardware by the application program.
28. (Original): The system of claim 18, wherein the TCP Stack is configured to select a connection for delegation based on at least one connection characteristic.
29. (Original): The system of claim 28, wherein the at least one connection characteristic includes connection duration.
30. (Original): The system of claim 28, wherein the at least one connection characteristic includes connection frame rate.
31. (Original): The system of claim 28, wherein the at least one connection characteristic includes a connection priority.